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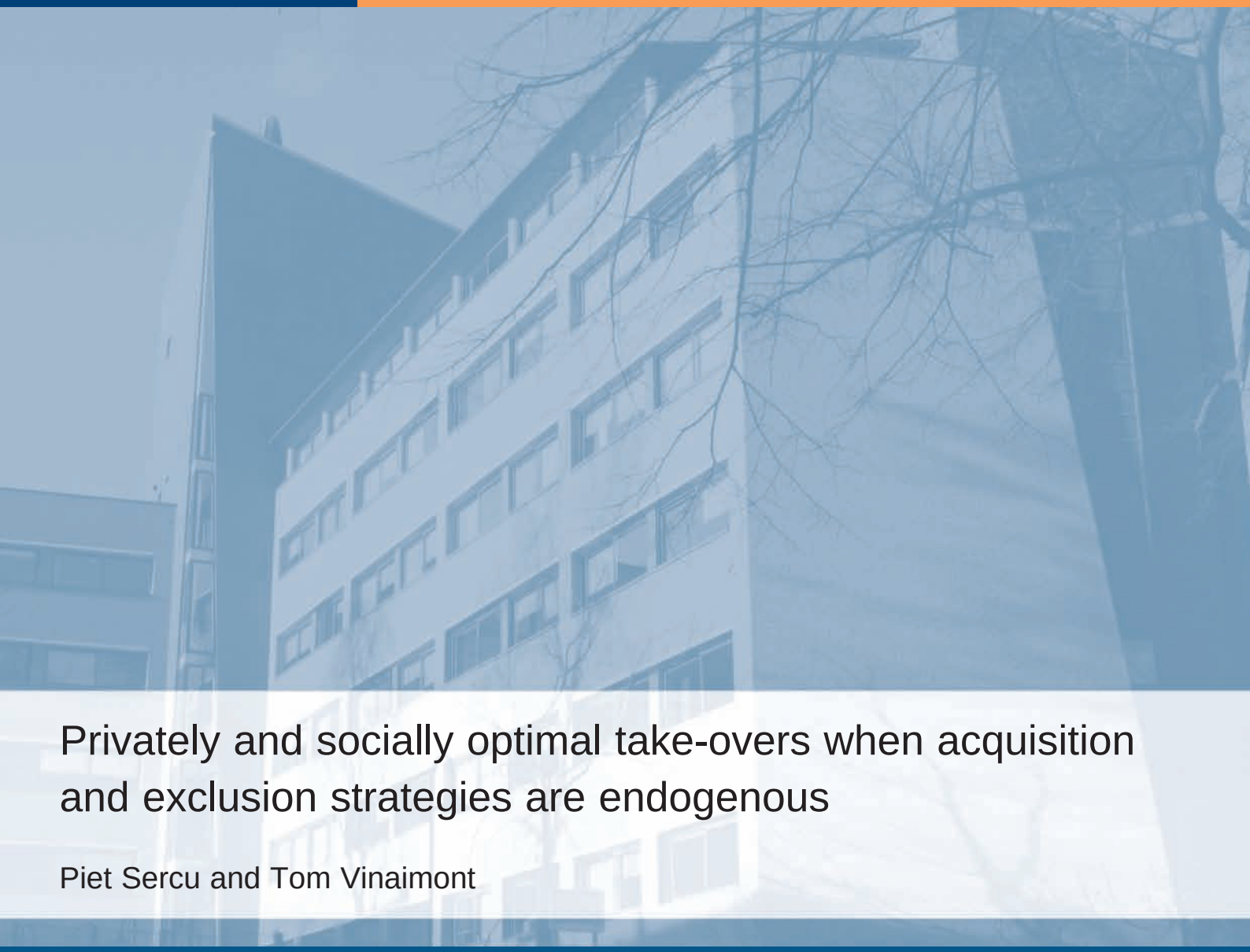

Privately and socially optimal take-overs when acquisition and exclusion strategies are endogenous

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DEPARTMENT OF ACCOUNTANCY, FINANCE AND INSURANCE (AFI)

AFI 0614

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First version: March 2006; this version: August 2006

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Abstract

The case for one share, one vote is quite robust to the way the takeover game is played, provided one goes all the way and allows not just toeholds or multiple bids and revisions but also bargaining. But a rule that exclusion should never harm the non-voting shares, or that these shares should be taken over at the pre-bid price, will do as well, without so severely curtailing a firm's room for security design. Under either rule, all privately beneficial takeovers are socially desirable and *vice versa*, and the value gains are shared fairly between the current shareholders and the bidder.

Keywords: Corporate Control, Security Design, Takeovers.
JEL-codes: G32, G34.

Privately and socially optimal take-overs when acquisition and exclusion strategies are endogenous

Introduction

In a standard model of takeovers with exclusion, the players' private benefits are given exogenously, as are the initial toeholds in the target company's equity, if any. Equally important, the authors of the model typically impose the sequence of the take-over game—for instance one bid followed by at most one counterbid—without checking whether the players would have chosen that sequence themselves. Famously, Grossman and Hart (GH, 1988) and Harris and Raviv (HR, 1988, 1989) used one such setting to discuss the (non-)optimality of one share/one vote (1S1V). The purpose of the paper is to study the issue of optimal voting structure in a less restrictive framework. While, in the original GH-HR structure of the game, 1S1V is no longer optimal if one allows toeholds or revised bids, it re-merges as a perfect rule as soon as we let the players freely decide on the takeover game—like chosing the toeholds, the number of bids and counterbids, or the use or bargaining at any stage where it appears to be useful. However, 1S1V is not the only way to achieve this. Alternative legal structures would do equally well, like a rule saying that non-voting stock should be taken over at the pre-bid value, or a rule that exclusion is unrestricted provided the non-voting stockholder are not harmed. Under either 1S1V and the alternative rules, all successful takeovers are socially desirable and *vice versa*, and any social gains are split fairly between the current shareholders and the new owner.

The background is as follows. The seminal papers in the literature on voting structure, Grossman and Hart (GH, 1988) and Harris and Raviv (HR, 1988, 1989) derive conditions for the optimality of 1S1V. The GH-HR papers have a rather similar set-up (which we broadly adopt in our work). Specifically, there are two types of cash flows: the security benefits accruing to the security holders, and the private benefits obtained by the controlling party. A rival management team attempts to dismiss the incumbent managers and take control of the target firm. Incumbent and rival teams have different management abilities, which affects the level of both the security benefits and the private benefits. GH establish conditions for the optimality of 1S1V from the perspective of an entrepreneur writing a charter. They argue that, by and large, 1S1V is optimal. They do acknowledge exceptions, but confine that particular part of

their analysis to an example, arguing that these exceptions should be rare and insignificant. HR (1988), in a similar set-up, find that a simple majority rule in combination with 1S1V are the socially optimal structure. However, an entrepreneur in their model, if allowed, would often prefer to issue two extreme securities, one with pure votes and one with only cash flow rights. In a more general version of their first paper, HR (1989) stress that an entrepreneur would optimally issue a single voting security, and that this "generalizes the results of GH (1988) and HR (1988) who proved the optimality of one-share one-vote ..."

The focus of the above papers and the claim of one-share one-vote being an optimal structure overall, fit in a context. First, the papers were written at a time a policy debate was in full swing as to whether the 1S1V structure had to be a requirement for listing on a US stock exchange. The research question in GH and HR is therefore rather normative, focused on whether exceptions on 1S1V should be allowed for or not, rather than on examining the mechanics behind these deviations. Second, the modeling of the takeover process followed the standard of the time. Notably, there is a bid by the rival, which could possibly be followed by one counterbid by the incumbent. Also, neither of the contenders owns any shares in the target company. Lastly, the levels of the private benefits are exogenously fixed. One objective behind this paper is to find out to what extent these restrictions are innocent.

Initial shareholdings are potentially important to the bidder as they reduce the cost of the takeover or, stated differently, let the bidder capture part of the capital gain. To the incumbent, on the other hand, shareholdings in the target company provide more of an incentive to counterbid. In the absence of an equity stake, management throws in the towel as soon as they see that counterbidding would cost more than the value (to the incumbent) of the shares; but a stake in the equity provides an incentive to counterbid and drive up the price as long as a rational rival can be expected to come back with a higher price. The role of toeholds interacts with the numbers of bids and counterbids that are allowed. The above game of driving up the price is possible only if we allow the bidder at least one revision. (In practice, of course, perfectly informed players would immediately go the final solution; so the fact that one rarely sees multiple-round bids does not contradict the need for leaving the players that option.)

As shown by Sercu and Van Hulle (1995), allowing for bargaining is crucial too. With many bidding rounds and no bargaining, the rival has to start very close to her reservation price—otherwise the current owners can counterbid close to that reservation price themselves, forcing the rival to revise the bid and offer basically the reservation price itself (HR 1988). This counterintuitive but logical outcome is ruled out if the rival can bargain. The rival then just lets

the current management make a winning counterbid, and then opens talks; the negotiations should allow a price somewhere halfway between both parties' threat points instead of just below the rival's threat point or reservation price. This is the rival's best strategy, and the incumbent cannot do anything about it: talking is the best way to limit the damage.

It is also important to leave the order of bargaining versus bidding unconstrained. If, like Berkovitch and Khanna (1991), one allows only bargaining followed by bidding, then the incumbent simply walks away from the negotiation table and starts bidding close to the rival's reservation price, leaving her again no choice but to offer basically the reservation price.

Lastly, when a bid surfaces (or rumors thereof), in reality a target company often reacts by announcing a reorganization. This means that the incumbents can cut the private benefits, if they feel this is useful. The level of private benefits must be even more of a choice variable for the bidder: and if it is in her interest to go for a low level of private benefits, this should be allowed in the model.

Our purpose accordingly is to revise the original 1S1V case with minimal restrictions on the game. Section 1 briefly reviews the argument for 1S1V in the original setting. Section 2 confirms that with an unrestricted take-over strategy the original conclusion still holds, and that allowing for bargaining is crucial in this. Section 3 considers an alternative to 1S1V. We conclude in Section 4.

1 The basic set-up

1.1 Assumptions

The setting closely follows the assumptions in GH. An entrepreneur with no financial resources has started up a firm. She appoints a management team i, the incumbent, under whose control the firm generates security cash flows y_i and private benefits z_i. The entrepreneur also issues two classes of shares, notably A shares that have all voting rights, and non-voting B shares. The cash flows are distributed across both classes, with a fractions s_a and $1-s_a$ accruing to the A and B stock, respectively. The entrepreneur also sets a level for α, the proportion of votes a team needs to assume control of the company. Lastly, the founder sells all claims to atomistic, risk-neutral investors. The questions in this paper are whether one level of s_a is socially more desirable than others and, if so, whether it is in the founder's own interest to chose exactly that level. We are particularly interested in whether it is optimal to chose $s_a = 1$. In that case, the B shares, having neither voting power nor cash flow rights, play no role whatsoever,

which means that we have a *de facto* 1S1V situation with just A shares.

The cash flow rule and the required number of votes for a change of control are important in case of an attempted take-over. The take-over issue arises from the arrival of a rival, r, under whose management the firm would generate a cash flow y_r and private benefits z_r. These characteristics are known to all investors. In the GH-HR version, the private benefits are exogenous. In one of our variants, we let the contenders set z_j endogenously, up to some bounds.

The rival management team publicly announces its bid, taking into account that any bid may trigger a reaction from the incumbent. In the GH-HR version there is just this one bid and one counterbid. In our variants, we allow the rival to revise at least once, and we allow either player to resort to bargaining at whatever moment this seems useful. (The other player can, of course, refuse to take part in negotiations.) In line with the post-GH-HR literature we consider just conditional bids for all shares. The reason for considering just conditional bids is that the GH-HR unconditional offers create a problem with the existence of equilibrium. Bagnoli and Lipman (1988) discuss this issue and also illustrate how *prima facie* unconditional bids are, in practice, so hedged around with escape clauses that the difference with conditional bids becomes tenuous. Bids for part of the shares, instead of our offers for all shares, would generally require a different analysis, but in our model the distinction does not matter. Many countries (e.g. all EU members) require any partial bid or private block transfer to be followed by an offer for the remaining shares, at the same price, anyway.

After r's final bid (and i's final counterbid, if any), investors choose to tender shares or votes to either i or r. After this tendering stage, a vote is held, and all shareholders vote. A change of control occurs when more than the fraction α of the voters vote in favor of the change. In the bargaining variant discussed in this paper, the winner can then again talk to the loser, if that is mutually beneficial. In fact, under our full-information assumption nothing is gained by explicitly playing a multi-stage game: r moves only if she will succeed, and r's first move, if any, will be her only one. Still, the level of that one bid is of course determined by the outcome of the explicit game.

1.2 The case for 1S1V legislation in the basic model

In this one-bid, one-counterbid game, r's reservation price for all of the A-shares is the one that nets her no profit at all, and similarly for i:

$$p_{a,r}^{max} = s_a y_r + z_r; \tag{1}$$

$$p_{i,r}^{max} = s_a y_i + z_i. \tag{2}$$

From this, the condition for a successful takeover immediately follows:

$$s_a y_r + z_r > s_a y_i + z_i. \tag{3}$$

Provided that this condition is met, the equilibrium bid price is the lowest price that silences i (i.e. $p_{a,r} \geq p_{i,r}^{max}$) and meets the no free-riding bound for the third shareholders, $p_{a,r} \geq s_a y_r$:

$$\begin{aligned} p_{a,r} &= \max(s_a y_i + z_i, s_a y_r), \\ &= s_a y_r + \max\left(s_a(y_i - y_r) + z_i,\, 0\right). \end{aligned} \tag{4}$$

Is this socially efficient? Social efficiency requires a bigger total cake (*i.e.* $y_r + z_r > y_i + z_i$) and, preferably, no losers among the small shareholders. (We are less tenderhearted towards i, who may lose the perks from control to r.) Obviously, in this game there cannot be any losers if the bidder and the current A-shareholders agree and if there are there are no B shares. More formally, if the charter stipulates $a_s = 1$, the X-efficiency condition $y_r + z_r > y_i + z_i$ no longer differs from the success condition, Equation (3).

If 1S1V aligns private and social interests once the charter is written, is it also in the founder's interest to set up the company this way, or must it be imposed by law? The familiar problem is that founders cannot universally be expected to set up the company as a 1S1V one. To see this, consider the value realized by the founder if the prospective bidder is strong enough: the market value of the B shares under r's management plus the bid price on the A-shares if r takes over. From Equation (4),

$$\begin{aligned} W_r &:= p_{a.r} + (1 - s_a) y_r \\ &= y_r + \max\left(s_a(y_i - y_r) + z_i,\, 0\right), \\ &= y_r + \max\left(z_i - s_a(y_r - y_i) + z_i,\, 0\right). \end{aligned} \tag{5}$$

We see that if the company is going to be taken over and we have $0 < y_r - y_i < z_i/s_a$, then the max part of the GH-HR valuation (5) is "in the money", and the more so the lower s_a. In

that case the value of the company is maximized by setting $s_a = 0$; that is, the A shares are pure voting stocks or control rights without security cash-flow rights. As a result, the takeover condition becomes just $z_r > z_i$. This is not as bad as it may look: that solution arises iff $y_r > y_i$, so that by assumption both the A- and B-shares still come out ahead and the takeover surely adds value. Rather, from the social point of view the problem is that, if the contenders ignore the benefit of that accrues to the security holders, some socially desirable takeovers will not take place. Hence the case for regulation that imposes $s_a = 1$.

Positive economists could object that if this is such a big issue, then one would either see more of these pure voting securities or, by way of reaction, many countries that impose 1S1V. Normative economists, on the other hand, might wonder whether there is no alternative to 1S1V that does not restrict a company's choices so directly. Dual-class shares may make the market more complete, after all, or appeal to certain clientèles. One possible consideration, relevant to both positivists and normatives, is that the case for 1S1V breaks down as soon as the GH-HR is extended by either the chance of a revised bid or initial toeholds. We first explain this argument and then show that this objection to 1S1V is demined if we realize the contenders can also bargain. We next propose an alternative explanation for the non-universality of 1S1V based on strategic exclusion.

2 Are toeholds in multi-stage bidding games an argument against 1S1V?

2.1 1S1V with toeholds and revisions of bids

First consider toeholds, *i.e.* initial holdings of shares A held by r or i. It is easy to show that in a one-bid/one-counterbid game the size of i's initial equity stake does not matter, provided it is below α. To see why, we start from i's reservation price for i, given an offer $p_{a,r}$. This is the maximum he can counterbid without being worse off relative to selling out to r:

$$p_{a,i}^{max} : \; s_a y_i + z_i - (1 - t_{a,i}) p_{a,i}^{max} = t_{a,i}\, p_{a,r}. \tag{6}$$

But provided that r still makes some money by it, her game is to offer i's reservation price. Setting $p_{a,r} = p_{i,r}^{max}$, we find that the old reservation price, Equation (2), remains valid, as if i had no equity stake whatsoever. Intuitively, i's equity stake does not affect his reservation value because r's offer is i's reservation price. This then replaces a cash cost by an opportunity cost: not selling a stake to r is as costly, to i, as buying a similar fraction from third shareholders if there is no toehold to begin with. To r, in contrast, the toehold is likely to help, at least

under the (weak) condition that $s_a y_r + z_r > s_a y_i$:

$$\begin{aligned} p_{a,r}^{max}: \quad & s_a y_r + z_r - (1 - t_{a,r}) p_{a,r}^{max} = t_{a,r}\, s_a y_i; \\ \Rightarrow \quad & p_{a,r}^{max} = \frac{s_a y_r + z_r - t_{a,r}\, s_a y_i}{1 - t_{a,r}}, \\ & = s_a y_r + z_r + \frac{t_{a,r}}{1 - t_{a,r}} (s_a y_r + z_r - s_a y_i). \end{aligned} \tag{7}$$

Thus, a bid that would have been a zero-NPV event in the absence of a toehold now gets a strictly positive value to r as her initial shareholdings rise in value, from $t_{a,r}\, s_a y_i$ to $t_{a,r}\, (s_a y_r + z_r)$. Similarly, some bids that would have been irrational without toehold will now make sense. Thus, to guarantee X efficiency we now seem to need not just $s_a = 1$ but also $t_{a,r} = 0$. Since forbidding toeholds is almost unthinkable, the case for imposing 1S1V is weakened.

It may have looked counterintuitive that i's toehold does not matter. But that conclusion is void as soon as, more realistically, r gets the chance to revise her original bid. The incumbent then weighs the option of buying up all A shares and retaining control not against the alternative of accepting r's opening bid, but against the alternative of accepting r's next, revised bid. This revised bit can be steered by i: just counterbid two ticks below r's reservation value, leaving r room for a marginally profitable revised bid one tick below her reservation value. But if the rival is forced to pay out essentially all her private benefits, many socially desirable takeovers will not take place. Again, 1S1V will not change that conclusion.

Introducing toeholds and revisions does add realism; but our objection is that one should go even further and introduce also unrestricted bargaining. It turns out that the players' option to negotiate restores the original case for 1S1V to its original form.

2.2 1S1V in a bidding+bargaining game

Suppose the players have the right to not only bid/counterbid/revise but also to bargain, and they can do so at any time they agree to do so. From our earlier discussion, r cannot voluntarily prefer to end with bidding, because this would give i the opportunity to drive up the price, forcing r to give up almost all gains in her last offer. Instead of chosing this disastrous route, r makes an opening bid that is easily beaten by i, and does not revise the original offer when i counterbids, thus letting i win. Then r offers talks. The incumbent enters the negotiations as the sole owner of all A shares (worth $s_a y_i$)—except for a toehold $t_{a,r}$ possibly retained by r—and still entitled to the private benefits z_i. The rival now offers a price $p_{a,r}^{ne}$. The stakes and gains are shown in Table 1.

Table 1: **Stakes in the bargaining game with nonvoting stock**

	i's values	r's values	total $(i+r)$
agreement	$(1-t_{a,r})\,p^{ne}_{a,r}$	$s_a y_r + z_r - (1-t_{a,r})\,p^{ne}_{a,r}$	$s_a y_r + z_r$
breakdown	$(1-t_{a,r})\,s_a y_i + z_i$	$t_{a,r}\,s_a y_i$	$s_a y_i + z_i$
gain	$(1-t_{a,r})(p^{ne}_{a,r} - s_a y_i) - z_i$	$s_a y_r + z_r - p^{ne}_{a,r} + t_{a,r}(p^{ne}_{a,r} - s_a y_i)$	$(s_a y_r + z_r) - (s_a y_i + z_i)$

Note how i's initial equity stake is again out of the picture: since the incumbent bought all the shares other than r's retained toehold (if any), the size of i's original position no longer matters. As to r's toehold, it is obvious from Table 1 that r's fall-back position or threat point, should negotiations fail, increase with $t_{a,r}$ while it weakens i's. Therefore r does not sell out.[1] Note also that while r's toehold affects the threat points and therefore the negotiated price, it does not affect the total gain, so it does not affect the condition for a successful takeover either. Specifically, there is scope for negotiations (and a guarantee of success, with rational players) if $s_a y_r + z_r > s_a y_i + z_i$, exactly as in the original model. Given this, the outcome is some price that is a convex combination of both valuations and, therefore, leaves both players part of the gain. Let x_r (with $0 < x_r < 1$) denote the share of the benefits that goes to r. For instance, in the axiomatic Nash solution x_r equals $1/2$, while in the Rubinstein game (Sutton, 1986) it would give r a small first-mover advantage ($x_r > 1/2$) if an extra bargaining round would have taken time and if time is money. After some tedious algebra we get the following two alternative expressions for the negotiated take-over price:

$$p^{ne}_{a,r} = s_a y_r + \frac{[x_r z_i + (1-x_r) z_r] - (x_r - t_{a,r}) s_a (y_r - y_i)}{1 - t_{a,r}}, \tag{8}$$

$$= s_a y_i + \frac{z_i + (1-x_r)[(s_a y_r + z_r) - (s_a y_i + z_i)]}{1 - t_{a,r}}. \tag{9}$$

We now proceed to the implications of the bargaining solution for the preceding bidding game. Suppose that r opens with an offer below $p^{ne}_{a,r}$. For this to be more than an empty gesture, this price must exceed the post-bid security value $s_a y_r$. So if $p^{ne}_{a,r} > s_a y_r$ the contenders can go through the full version of the game: (a) r starts with any offer in the interval $[s_a y_r,\, p^{ne}_{a,r}[$; ($b$) i offers more, knowing that he will be able to resell the shares to r during the negotiation round at $p^{ne}_{a,r}$; the third shareholders sell out, r does not; (c) in a private transfer, r buys all of

[1] In Sercu and Van Hulle (1995) it is assumed that there is no toehold or that r sells out in the bidding phase; this would be optimal only if i's offer price is bid up all the way to $p^{ne}_{a,r}$.

i's A shares at $p^{ne}_{a,r}$. The alternative (implicit) version of the entire game is that r immediately offers $p^{ne}_{a,r}$ to all holders of A shares, and succeeds.

Suppose, alternatively, that $p^{ne}_{a,r}$ is below $s_a y_r$. Then r can still play the implicit version: immediately offer $s_a y_r$, and succeed. The incumbent cannot counterbid since r would then not revise and trump i but let him win. The incumbent's only remaining option would then be a negotiated block sale at $p^{ne}_{a,r}$, by assumption below i's purchase price. In short, when $p^{ne}_{a,r}$ is below $s_a y_r$, bargaining is just a threat that stops i from trying to drive up the price; the talks should not actually happen. We conclude that, in a bidding+bargaining game,

$$p_{a,r} \quad = \quad \text{Max}\left(s_a y_r, p^{ne}_{a,r}\right). \tag{10}$$

The analysis of the stakes already told us that the condition for a successful takeover simplifies to an X-efficiency condition if $s_a = 1$, the quasi-1S1V charter, like in the HR-GH base case. We now show that, again like in GH-HR, the founder might not go for this charter. To see this, consider the value realized by the founder if the rival makes a successful bid. From Equations (10) and (8) we obtain

$$W_r \quad := \quad p_{a,r} + (1 - s_a) y_r \tag{11}$$

$$= \quad y_r + \text{Max}\left(\frac{[x_r z_i + (1 - x_r) z_r] - (x_r - t_{a,r}) s_a (y_r - y_i)}{1 - t_{a,r}}, 0\right). \tag{12}$$

Note that $x_r \geq 1/2$ and $t_{a,r} \ll 1/2$—otherwise r would already be in control—so that $(x_r - t_{a,r})$ is positive. So when $p^{ne}_{a,r} > s_a y_r$ and $y_r > y_i$, the firm's total value falls the higher s_a, which means that the founder has no incentive to impose 1S1V under that condition; rather, the temptation would be to go for extreme separation of voting rights and cash rights. Qualitatively, this is the same conclusion as in the basic GH-HR model, but the interval where this is valid may often be wider than in the basic model:

$$s_a = 0 \text{ is optimal when } 0 < y_r - y_i < \begin{cases} \frac{z_i}{s_a}, & \text{(basic model)}, \\ \frac{x_r z_i + (1 - x_r) z_r}{s_a (x_r - t_{a,r})}, & \text{(bidding+bargaining)}. \end{cases} \tag{13}$$

When $p^{ne}_{a,r} < s_a y_r$ the founder is indifferent, and when $p^{ne}_{a,r} > s_a y_r$ but $y_r > y_i$ the founder prefers a 1S1V charter, again as in the basic model.

3 An alternative to 1S1V

The normative economist looking for an alternative to 1S1V might consider a standard Pareto rule (do not harm the B shares) and then hope that normal greed will do its work. We show that

this actually works. The positive economist who looks for an explanation why 1S1V regulation is not widespread and why, given this, pure-voting securities are nevertheless rare might therefore conclude that, perhaps, the bidder does maximize exclusion subject to a no-harm-to-B rule, inspired by PR considerations or fear of litigation.

To see this, let us now drop the assumption that both security and private benefits are exogenous, and think instead about the optimal level of the private benefits for an exogenously given total cash-generating power of V_i or V_r. We write the value of the A shares, *cum* control perks, to player $j = \{i, r\}$ as

$$s_a y_j + z_j = s_a \left(V_j - z_j\right) + z_j = s_a V_j + (1 - s_a) z_j. \tag{14}$$

In this, V_j depends on j's (exogenous) talents but z_j is chosen strategically, within legal or contractual constraints. From the stakes shown in Table 1, it is in i's interest to maximize z_i because this increases i's threat point and, therefore, the price i gets for surrendering the shares and the control rights that go with them. In fact, maximizing z_i was in i's interest all along. For this reason, i leaves his private benefits at $\overline{z}_i$ when the takeover contest starts. The rival likewise sets z_r at the highest possible level: this increases the value of the assets r takes home, and while part of that gain is shared with i via a a higher $p^{ne}_{a,r}$, r still gets to keep a fraction x_r of any extra private benefits.

When maximizing the announced private benefits the rival, unlike i, should not expect any protests from the A shareholders: they stand to benefit from rs higher reservation value because this also increases the takeover price r pays for the A shares. So the party to watch is the B shareholders. Remember that changes in value of the B shares are at the root of possible market failures here, with a weak rival winning because she is better at fleecing the Bs, or with a stronger rival losing out because too much value gain leaks away to the Bs. But if r sets the private benefits such that the B shareholders neither win nor lose, the same is achieved without having to impose 1S1V:

$$(1 - s_a) y_r = (1 - s_a) y_i \Leftrightarrow V_r - z_r = V_i - z_i \Leftrightarrow z_r = z_i + (V_r - V_i). \tag{15}$$

We conclude that, under this constraint, the privately optimizing values are

$$z_i = \overline{z}_i, \tag{16}$$

$$z_r = \overline{z}_i + (V_r - V_i), \tag{17}$$

$$y_r = y_i. \tag{18}$$

We substitute these values into the success condition $s_a y_r + z_r > s_a y_i + z_i$ and get, as the new takeover condition,

$$V_r > V_i. \tag{19}$$

Likewise substituting the solutions into (10) we get a very simple price result,

$$\begin{aligned} p_{a,r} &= \text{Max}\left(s_a y_r, s_a y_i + \frac{z_i + (1-x_r)(V_r - V_i)}{1 - t_{a,r}}\right), \\ &= s_a y_i + \frac{z_i + (1-x_r)(V_r - V_i)}{1 - t_{a,r}}. \end{aligned} \tag{20}$$

This says that a rival without toehold pays out (i) the entire original private benefit, and (ii) about half of the total value gain. With a toehold, the pay-out per share is even higher.[2]

Can we rely on the rival to choose that column, or do we need legislation? Since the rival has no incentive to stop at a lower level of private benefits, the relevant question is whether she can be relied upon not to take more than the critical level. By assumption the B shares are non-voting securities for the purpose of takeovers, but they need not be voiceless on other matters, including extraction and private benefits. So the question is whether the B shareholders' power, or PR considerations, or the press are sufficiently adequate instruments to restrain the rival. If not, a SEC-like institution may be required vet the tender offers on behalf of the B shareholders, or one can impose a rule that B-shares should be bought out, too, at a price that is fair by pre-takeover standards. In either case, legislation may be required. But that legislation needs not be 1S1V.

4 Conclusion

The case for 1S1V is quite robust to the way the takeover game is played, provided one goes all the way and allows not just toeholds or multiple bids and revisions but also bargaining. But a rule that exclusion should never harm the B shares will do as well, without so severely curtailing a firm's room for security design. Under either rule, all privately beneficial takeovers are socially desirable and *vice versa*, and the value gains are shared fairly between the current shareholders and the bidder.

[2]Thus, the stinginess is more apparent than real. Indeed, recall that for the A shares, the post-bid value $s_a y_r = s_a y_i$ is just a threat: the implicit negotiation stage ensures that the rival actually shares about half of the gains with the current shareholders. True, B shareholders would not take part, but (i) they knew that when they bought the securities, and (ii) they can buy a portion in both classes of shares if they do not like the discrimination.

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